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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,037	11/26/2001	Jeffrey R. Thomas	ITWO:0023	9675

7590 08/23/2007  
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EXAMINER
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IP, SIKYIN

ART UNIT	PAPER NUMBER
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1742

MAIL DATE	DELIVERY MODE
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08/23/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/995,037	<b>Applicant(s)</b> THOMAS ET AL.	
	<b>Examiner</b> Sikyin Ip	<b>Art Unit</b> 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8, 47, 51-55, 57-62 and 64-86 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 47, 51-55, 57-62 and 64-86 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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## DETAILED ACTION

### Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-6, 8, 47, and 51-55 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-30 of U.S. Patent No. 6727483. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed portable induction components are overlapped by portable induction components.

Claims 57-62 and 64-86 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-30 of U.S. Patent No. 6727483 in view of USP 2359058 to Somes.

Claims of USP 6727483 disclose an induction heating system comprising a power source and cooling unit except for flow switch. Somes teaches to use flow switches to insure induction coil is properly cooled. Therefore, using flow switch in

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induction heating system to insure the induction coil is properly cooled is contemplated within ambit of ordinary skill artisan.

Claims 1-6, 8, 47, 51-55, 57-62, and 64-86 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-28 of U.S. Patent No. 7015439. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed portable induction components are overlapped by portable induction components.

#### Claim Rejections - 35 USC § 103

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating

obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-6, 8, 47, 51-55, 57-62, and 64-86 are rejected under 35 U.S.C. § 103 as being unpatentable over USP 3403240 to Henderson in view of USP 5430274 to Couffet et al, USP 4058696 to Antier et al, and further teaching of USP 5198053 to Duncan.

The Henderson in figures 1-4 and col. 2, line 23 - col 4, line 33 discloses the features including the claimed portable induction unit with cooling. Cooling water is supplied to induction heating element (22) (col. 3, lines 65-71 and Figure 8 and paragraph bridging col. 2-3). Henderson discloses cooling water supply is controlled by a solenoid which is actuated by power supply motor-generator set. The solenoid (122), control box (131), and check valve (128) read on the claimed "flow switch" (col. 3, lines 57-75). All have same function to control induction heating element temperature. Henderson does not disclose cooling fluid through the fluid-cooled induction heating cable, a portable power inverter, and programmable power source controller. Couffet discloses cooling tube in the induction conductor to prevent parasitic heating (col. 1, lines 14-59). Antier in col. 2, lines 5-44 discloses a portable power inverter which has benefit as set forth in col. 2, lines 5-11. Duncan in col. 7, lines 24-62 that using Lebtech Notebook Proportional –Integral-Derivative (PID) algorithm or any other control program with personal computer to control induction unit to produce time-temperature curve is commercially available. Programming power controlled unit is well known in the induction art for various heating. Therefore, it is contemplated within ambit of ordinary skill artisan to automate a manual control device of Henderson when technology is available to improve product quality. With respect to steps such pre-heating, post-heating, and stress relieve heating which can be done by induction heating system of Henderson. Moreover, it is well settled that a claim drawn to apparatus must distinguish over prior art in terms of structure. *Ex parte Forsyth and Hancher*, 151 USPQ 55, 55.

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Claims 57-62 and 64-86 are further rejected under 35 U.S.C. 103(a) as being unpatentable over references as applied to claims above, and further in view of USP 2359058 to Somes.

The above references disclose the features substantially as claimed as set forth in the rejection above except for flow switch that detects coolant from induction heating coil. However, Somes teaches flow switch that deenergized induction heating coil when said coil is not properly cooled (page 3, left-col. lines 40-57) in the same field of endeavor or the analogous metallurgical art. Therefore, it would have been obvious to one having ordinary skill in the art of the cited references at the time the invention was made to provide flow switches that detect coolant and temperature of induction heating coil as taught by Somes in order to provide proper cooling. In re Venner, 120 USPQ 193 (CCPA 1958), In re LaVerne, et al., 108 USPQ 335, and In re Aller, et al., 105 USPQ 233.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-6, 8, 47, 51-55, 57-62, and 64-86 have been considered but are moot in view of the new ground(s) of rejection.

### **Conclusion**

Applicant is reminded that when amendment and/or revision is required, applicant should therefore provide a concise explanation and support with page and line number in the specification for any amendments made to the disclosure. See 37 C.F.R. Part §41.37 (c)(1)(v).

### **Examiner Correspondence**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Ip whose telephone number is (571) 272-1241. The examiner can normally be reached on Monday to Friday from 5:30 A.M. to 2:00 P.M.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Roy V. King, can be reached on (571)-272-1244.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
SIKYIN IP  
PRIMARY EXAMINER  
ART UNIT 1742

S. Ip  
August 20, 2007